

Applied Math Formula Sheet

Distance

1 foot = 12 inches
1 yard = 3 feet
1 mile = 5,280 feet
1 mile ≈ 1.61 kilometers
1 inch = 2.54 centimeters
1 foot = 0.3048 meters
1 meter = 1,000 millimeters
1 meter = 100 centimeters
1 kilometer = 1,000 meters

Area

1 square foot = 144 square inches
1 square yard = 9 square feet
1 acre = 43,560 square feet

Volume

1 cup = 8 fluid ounces
1 quart = 4 cups
1 gallon = 4 quarts
1 gallon = 231 cubic inches
1 liter ≈ 0.264 gallons
1 cubic foot = 1,728 cubic inches
1 cubic yard = 27 cubic feet
1 board foot = 1 inch by 12 inches by 12 inches

Weight/Mass

1 ounce ≈ 28.350 grams
1 pound = 16 ounces
1 pound ≈ 453.592 grams
1 milligram = 0.001 grams
1 kilogram = 1,000 grams
1 kilogram ≈ 2.2 pounds
1 ton = 2,000 pounds

Rectangle

perimeter = $2(\text{length} + \text{width})$
area = $\text{length} \times \text{width}$

Rectangular Solid (Box)

volume = $\text{length} \times \text{width} \times \text{height}$

Cube

volume = $(\text{length of side})^3$

Triangle

sum of angles = 180°

area = $\frac{1}{2}(\text{base} \times \text{height})$

Circle

number of degrees in a circle = 360°
circumference ≈ $3.14 \times \text{diameter}$
area ≈ $3.14 \times (\text{radius})^2$

Cylinder

volume ≈ $3.14 \times (\text{radius})^2 \times \text{height}$

Cone

volume ≈ $\frac{3.14 \times (\text{radius})^2 \times \text{height}}{3}$

Sphere (Ball)

volume ≈ $\frac{4}{3} \times 3.14 \times (\text{radius})^3$

Electricity

1 kilowatt-hour = 1,000 watt-hours
amps = watts ÷ volts

Temperature

$^\circ\text{C} = \frac{5}{9}(\text{°F} - 32)$

$^\circ\text{F} = \frac{9}{5}(\text{°C}) + 32$